

**REMARKS**

The Examiner has required that Figures 11 and 12 be designated as --Prior Art-- because only that which is old is illustrated. Applicant submits that Figures 11 and 12 include the burner 2 with the cartridge 8 of the present invention and therefore do not illustrate only that which is old. It is therefore respectfully submitted that the objections to the drawings be withdrawn.

The abstract has been amended to make it conform to the disclosure.

The Examiner has rejected Claims 1 to 4, 8 and 10 to 14 as being unpatentable over Neufeldt in view of Haire. The Examiner states that Haire discloses a burner assembly having a skirt 64. It is respectfully submitted that Haire does not disclose a skirt 64. Haire discloses a reverberator having a central raised portion 64 that is spaced a predetermined distance from the multi-ply screen assembly (see Column 4, beginning at Line 7). The central raised portion is not a skirt. The reverberator has openings 72 therein that are substantially larger than the openings defined in the multi-screen assembly and serves as a means for reflecting radiant heat back onto the screen assembly from exhaust gases. The skirt of the present invention is entirely open at the bottom and extends downward from an area of the periphery of the cartridge. While the central raised portion 64 of the reverberator E may result in more even distribution of the heat over the entire primary radiant surface by reflecting the radiant heat back onto the screen assembly, the raised central portion will result in uneven heating on the surface or object that is being heated by the burner assembly. It is noted from Figures 3 and 7 that the reverberator 64 is a screen that is located outside of the radiant surface. Combustion occurs on the radiant surface. Since the central raised portion 64 of the reverberator is located outside of the radiant surface, the central raised portion will cause uneven heating of an object or surface to be heated located outside of the reverberator E. The uneven heating will be caused by the metal rods making up the screen of the central raised portion blocking some of the heat that passes through the central raised portion as well as the fact that some of the heat from the radiant surface is reflected back onto the screen assembly.

The Haire patent does not disclose a cartridge, but does disclose multiple screens.

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The weave of the screens are angularly disposed approximately 45 degrees with successive screens having a weave that is substantially perpendicular to the previous screen. The weave pattern is said to permit the individual screens to expand in a uniform manner during heating and to eliminate excessive metal fatigue. In Column 4, beginning at Line 44, it is stated that disposing the air inlet, which is described as air inlet or opening 18 in Column 2 at Line 60, along the bottom surface positions the combustion air is as great a distance as possible from the radiant surface to limit backflashing. In other words, Haire states that backflashing is limited in his design by the location of the air inlet 18 rather than by the multiple screens. With the present invention, backflashing is limited by the arrangement of the various layers. As stated on Page 6, beginning at Line 23 of the present application, the skein prevents any flame that gets through the ceramic fiber or wool from passing further through the cartridge into the chamber 16.

The Examiner states that it would have been obvious to use the burner assembly of Haire in the radiant heating unit of Neufeldt in order to provide stable heating along the entire radiant surface. One of the uses of the radiant heating unit of the present invention is to use the unit to heat various surfaces including asphalt roadway surfaces to recondition those surfaces. The unit can be used with surface reconditioning machines. The stable heating is required at the roadway surface or other surface that is being heated. As stated above, the Haire patent does not have a skirt and cannot produce stable heating at the surface to be heated because of the central raised portion 64 of the reverberator E. As stated above, the central raised portion 64 is a screen with large openings that is located outside of the radiant surface and reflects some of the heat from the radiant surface back onto the radiant surface. The reverberator is spaced from the radiant surface. Therefore, the combination of Haire and Neufeldt, as suggested by the Examiner, would not result in a radiant heating unit as described in the present application. As the Examiner states, Neufeldt does not disclose layers of steel and ceramic fiber as being replaceable. Further, it is respectfully submitted that neither Neufeldt nor Haire describe a cartridge. While Claim 1 as originally filed is not rendered unpatentable by Neufeldt in view of Haire, Applicant has further amended Claim 1 to advance the prosecution of the application.

Further, the Examiner states that it would have been obvious to use multiple

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screens consisting of aluminum screen, stainless steel mesh and ceramic wool in order to provide a heat resistant flashback prevention layer. It is respectfully submitted that Haire does not disclose the use of multiple screens to control flashback. Haire controls flashback by the location of the air inlet vent 18. It is therefore respectfully submitted that Claims 2 to 4 are not rendered obvious by Neufeldt in view of Haire. Further, neither Neufeldt nor Haire suggest the arrangement of layers as described in Claim 4.

The Examiner states that the specification reveals no reason for limiting the number of bolts to eight. It is respectfully submitted that it is readily apparent from the application as originally filed that the limitation of the number of bolts to eight reduces the time required to remove and replace a spent cartridge with a new cartridge. It is therefore respectfully submitted that the objection to Claim 8 be withdrawn as limiting the number of bolts to eight in Prior Art units would result in an unstable heating unit.

It is therefore respectfully submitted that Claim 1 as amended is distinguishable over the Prior Art relied upon by the Examiner and that the objections made by the Examiner on the basis of obviousness should be withdrawn.

We are enclosing credit card authorization for a one month extension of time fee in the amount of \$55.00.

Yours very truly,



Daryl W. Schnurr  
Reg. No. 28,569